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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,530	04/20/2004	Torbjorn Sandstrom	2674-000025/US	2964

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 8910
Reston, VA 20195

EXAMINER

WHITMORE, STACY

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

3/L

Office Action Summary	Application No.	Applicant(s)	
	10/827,530	SANDSTROM ET AL.	
	Examiner	Art Unit	
	Stacy A. Whitmore	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-9 are objected to because of the following informalities:
 - I. In claims 1-9, the terms CD and 2-dim are used, however, the terms should at least be fully described at least once prior to using the acronym for better claim clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claims:

- I. In claims 1 and 8-9, line 4, applicant discloses “determining a two...profile in said pattern printed...”. The term “in” is unclear because it is not understood how a profile can be “in” a pattern printed. Does applicant to use a term such as “about or related to”? Clarify.

- II. In claims 1 and 8-9, line 9, applicant uses “with” to describe the act of patterning using a file. The term with is unclear because it is not known how a file can pattern a work piece. Does applicant mean using the file information to effect a method of patterning using some device such as a wafer processing apparatus? Clarify.

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3. Claims 2-7 are also rejected based upon their dependence upon a rejected independent claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Chilese (US Patent 6,424,879).

5. As for the claims, Chilese discloses the invention as claimed, including a method to compensate for process variations when printing a pattern on a work piece, said method comprising:

Determining (or predicting) a two-dimensional CD (critical dimension) profile in said pattern printed on said work piece [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20];

Generating a two-dimensional (dose) compensation file to equalize fluctuations in said two-dimensional cd profile [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, the dose is the exposure adjustment part of the distortion maps]; and

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Patterning a work piece with said two-dimensional compensation file [[col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20];

Predicting the two-dimensional cd profile [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, the distortion maps are predictive];

Measuring the two-dimensional profile [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, the distortion maps are adjusted for, and therefore must be measured in order for the system to compensate for response of the patterns and/or substrate];

Pattern data [[col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20];

Dose compensation data [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, the dose is the exposure adjustment part of the distortion maps];

Correction map [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, adjustment part of the distortion maps are correction maps]; and

A two-dimensional dose compensation profile [col. 1, lines 45-50, 65-67; col. 2, lines 1-30; col. 5, lines 1-17, 53-67; col. 6, lines 5-20, the distortion maps are two-dimensional].

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore

Primary Examiner

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SAW

May 5, 2006

A handwritten signature in black ink, appearing to read 'SAW' followed by a stylized flourish.